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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,529	02/09/2001	Yue Ma	55254/38	2689

7590	03/29/2005

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EXAMINER
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ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)	
Office Action Summary		09/781,529	MA ET AL.	
		Examiner	Art Unit	
		King Y. Poon	2624	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 November 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>7-13</u> is/are allowed.

6)☒ Claim(s) <u>1-5 and 14</u> is/are rejected.

7)☒ Claim(s) <u>6 and 15</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>01 April 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Regarding claims 1: It is unclear the "Hidden Markov Models" is used to

selectively process the print request or is used to remove the handwritten text.

Claims 2, 3 are rejected under 35 U.S.C. 112, second paragraph because it

depends on rejected claim 1.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1, 4, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bloomberg (US 5,181,255) in view of Nathan et al (US 6,567,548).

Regarding claim 1: Bloomberg teaches a system (fig. 1A) for printing documents

(fig. 7A), comprising: means (103, column 5, lines 45-50) for generating digital

documents having handwritten text and machine printed text (fig. 7A) and for generating

a request (the signal sent form 103 to computer 106 that would activated the computer

to process the scanned image, column 5, lines 55-65) to print (printer, column 6, lines 1-

5) at least one of the digital document; an intelligent printing control interface (computer

106, column 5, lines 55-65) connected to the means for generating which receives the

request and selectively (column 6, lines 7-20) processes the request to remove the

handwritten text (fig. 7A to fig. 7I); and means (printer, column 6, line 3) connected to

the intelligent printing control interface for printing the selectively processed request.

Bloomberg also teach the step of removing the handwritten text is to recognize

the handwritten text (column 6, lines 57-61) from the machine printed text.

Bloomberg does not teach to recognize the handwritten text using Hidden

Markov Models.

Nathan, in the same area of recognizing hand written text, teaches that

recognizing hand written text using Hidden Markov Model (column 3, lines 45-65,

column 6, lines 54-57) is well known in the art; and to separate the recognized hand

written text from other image data in the document (column 6, lines 37-47) and to

remove unwanted images.

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified Bloomberg to include: to recognize

and separate the handwritten text from other images (non hand written images) such

that the recognized hand written can be removed.

It would have been obvious to a person with ordinary skill in the art at the time

the invention was made to have modified Bloomberg by the teaching of Nathan because

of the following reasons: (a) using HMM method of recognizing hand written text is well known in the art as taught by Nathan, column 6, lines 54-56); and (b) using a well known method would ensure accuracy and reliable of the system because a well known method is being experience by many users and lots of improvement from the accumulated experience.

Regarding claim 4: Bloomberg teaches a system (fig. 1A) for copying documents (fig. 7A), comprising: a scanner (103, column 5, lines 45-50) for generating a digital document having handwritten text and machine printed text (fig. 7A) and for generating a request (the signal sent form 103 to computer 106 that would activated the computer to process the scanned image, column 5, lines 55-65) to print (printer, column 6, lines 1-5) the digital document; an intelligent printing control interface (computer 106, column 5, lines 55-65) connected to the scanner which receives the request and selectively (column 6, lines 7-20) processes the request to remove the handwritten text (fig. 7A to fig. 7I); and a printer (printer, column 6, line 3) connected to the intelligent printing control interface for printing the selectively processed request.

Bloomberg also teach the step of removing the handwritten text is to recognize the handwritten text (column 6, lines 57-61) from the machine printed text.

Bloomberg does not teach to recognize the handwritten text using Hidden Markov Models.

Nathan, in the same area of recognizing hand written text, teaches that recognizing hand written text using Hidden Markov Model (column 3, lines 45-65, column 6, lines 54-57) is well known in the art; and to separate the recognized hand

written text from other image data in the document (column 6, lines 37-47) and to

remove unwanted images.

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified Bloomberg to include: to recognize

and separate the handwritten text from other images (non hand written images) such

that the recognized hand written can be removed.

It would have been obvious to a person with ordinary skill in the art at the time

the invention was made to have modified Bloomberg by the teaching of Nathan because

of the following reasons: (a) using HMM method of recognizing hand written text is well

known in the art as taught by Nathan, column 6, lines 54-56); and (b) using a well

known method would ensure accuracy and reliable of the system because a well known

method is being experience by many users and lots of improvement from the

accumulated experience.

Regarding claim 14: Bloomberg teaches method for copying and printing

documents, (column 6,lines 1-6) comprising the steps of: generating a digital image

(column 5, lines 45-55) of a document having both handwritten text and machine printed

text (fig. 7A); generating (the signal sent form 103 to computer 106 that would activated

the computer to process the scanned image, column 5, lines 55-65) a request to print

the digital image; processing the request to selectively remove the handwritten text

(column 6, lines 7-20); and transmitting (column 6, lines 1-5) the selectively processed

request to a printer for printing thereof.

Bloomberg also teach the step of removing the handwritten text is to recognize the handwritten text (column 6, lines 57-61) from the machine printed text.

Bloomberg does not teach to recognize the handwritten text using Hidden Markov Models.

Nathan, in the same area of recognizing hand written text, teaches that recognizing hand written text using Hidden Markov Model (column 3, lines 45-65, column 6, lines 54-57) is well known in the art; and to separate the recognized hand written text from other image data in the document (column 6, lines 37-47) and to remove unwanted images.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bloomberg to include: to recognize and separate the handwritten text from other images (non hand written images) such that the recognized hand written can be removed.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bloomberg by the teaching of Nathan because of the following reasons: (a) using HMM method of recognizing hand written text is well known in the art as taught by Nathan, column 6, lines 54-56); and (b) using a well known method would ensure accuracy and reliable of the system because a well known method is being experience by many users and lots of improvement from the accumulated experience.

3.   Claims 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bloomberg in view of Nathan et al. as applied to claims 1, 4 above, and further in view

of Kodaira et al (US 6,043,823).

Regarding claims 2, 5: Bloomberg teaches wherein the intelligent printing control

interface further comprises: a virtual printer driver (the software/hardware, column 11,

lines 35-40, for receiving image data/signals from scanner 013, fig. 1A) for receiving the

request; and a handwriting separation module (the software/hardware, column 11, lines

35-40, that identifies the hand written text such that either the hand written text or the

machine printed text are removed) for selectively processing the request, under control

of the printing control software/hardware, to remove the handwritten text.

Although a printing control panel for user input are well known in the art to be

used with a computer, Bloomberg does not such a printing control panel for determining

whether to process the request in a way that the handwritten separation module can

selectively processing the request, to remove the handwritten text.

Kodaira, in the same area of using a processor of identifying and removing hand

written pattern (column 14, lines 60-67, column 15, lines 1-5) teaches a printing control

panel (106, column 6, lines 40-50, column 14, lines 50-60) for determining whether to

process a print request in a way that a handwritten separation module (103, 104,

column 14, lines 40-50) can selectively processing the request, to remove a handwritten

pattern.

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified Bloomberg to include: a printing

control panel for determining whether to process the request in a way that the

handwritten separation module can selectively processing the request, to remove the

handwritten text.

It would have been obvious to a person with ordinary skill in the art at the time

the invention was made to have modified Bloomberg by the teaching of Kodaira

because of the following reasons: (a) it would have allowed users to program the

computer to select whether to remove the handwritten text; and (b) since most computer

requires user's input/program-including Bloomberg's computer, it would have allowed

Bloomberg's system to be completed and operable.

Allowable Subject Matter

4.   Claims 7-13 are allowed.

3.   Claims 6, 15 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

Response to Arguments

4.   Applicant's arguments filed 11/3/2004 have been fully considered but they are

not persuasive.

5.   In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the use of Hidden Markov Models to identify machine text portions and hand written annotations) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
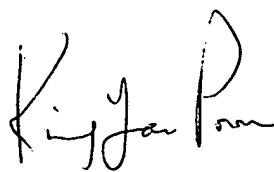
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to King Y. Poon whose telephone number is (571) 272-

7440.

3/25/05

KING Y. POON
PRIMARY EXAMINER